Claims 3, 4 and 18-20 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the invention was filed, had possession of the claimed invention. The Office believes that the full breadth of the claims does not meet the written description requirement because the species disclosed is not representative of the genus.

The Applicants respectfully traverse this ground for rejection. Applicants have not merely named a cDNA sequence but have disclosed an entire family of B305D (or B11Ag1) polynucleotide and polypeptide sequences. This family is made up of splice forms (SEQ ID NOs: 292-300, 302-306), mutated sequences/allelic variants (SEQ ID NOs: 313-317), and chromosomal sequences (SEQ ID NOs: 325 and 326), all of which have identity to B305D isoform C (SEQ ID NOs: 301 and 304), see pages 97-99 of Applicants' specification.

Applicants particularly disclose B305D sequences that share at least 90% identity at the amino acid level and 96% identity at the DNA level with B305D isoform C (SEQ ID NOs: 304 and 301), see, for example, the paragraph bridging pages 98-99. SEQ ID NO:301 was used as a query sequence in a BLASTN search of the Genbank DNA database, which hit a genomic clone from chromosome 21. Pairwise alignments were used to identify the putative exon, or coding, sequence of the chromosome 21 sequence that corresponds to the B305D sequence and this region was reconstructed. This reconstructed sequence was then aligned with the B305D isoform C sequence (SEQ ID NO: 301) and was found to be 96.5% identical to B305D. The chromosome 21 sequence (provided in SEQ ID NO: 325) encoded a protein (SEQ ID NO: 326) with 384 amino acids. An alignment of this protein with the B305D isoform C protein (SEQ ID NO: 304) showed 90% amino acid identity.

Applicants have provided both polypeptide and polynucleotide sequences corresponding to B305D isoform C, polynucleotide and polypeptide sequences that share identity with B305D isoform C, and teachings such that one of skill in the art, using the information disclosed within Applicants' specification (see in particular pages 25-37) and the sequences disclosed therein, would readily know which sequences were within the scope of Applicants' claimed invention. As such, one of skill in the art would recognize that Applicants were in possession of the claimed invention at the time of filing.

Applicants respectfully submit that the above amendments and comments obviate and overcome the rejection and request reconsideration and withdrawal of the rejection under 35 U.S.C. §112, first paragraph.

Claim 20 stands rejected under 35 U.S.C. §102(e) as being anticipated by Frudakis et al. (US 6,225,054 B1).

Applicants respectively traverse this ground for rejection. Nevertheless, to advance allowance of particular embodiments of Applicants' invention, Applicants have amended claim 20 to encompass only those oligonucleotides that hybridize to at least a portion of the nucleotide sequence of SEQ ID NO:301 from nucleotide 1 to nucleotide 61.

In view of the amendments and remarks above, Applicants respectfully request that the Office withdraw the rejection under §102(e). Reconsideration of the claims is respectfully requested.

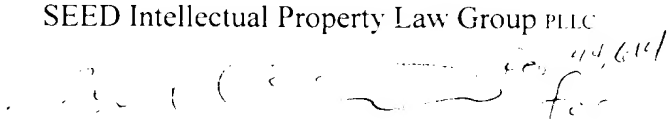
Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version With Markings to Show Changes Made**."

Applicants respectfully submit that all of the claims remaining in the application are now allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

Tony N. Frudakis et al.

SEED Intellectual Property Law Group PLLC



Susan Lingenfelter, Patent Agent
Registration No. 41,156

Enclosure:
Postcard

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

The paragraph listed at the first line of the specification has been deleted and replaced with the following paragraph:

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part of U.S. Patent Application No. 09/590,583, filed June 8, 2000, which is a continuation-in-part of U.S. Patent Application No. 09/577,505, filed May 24, 2000, which is a continuation-in-part of U.S. Patent Application No. 09/534,825, filed March 22, 2000, which is a continuation-in-part of U.S. Patent Application No. 09/429,755, filed October 28, 1999, which is a continuation-in-part of U.S. Patent Application No. 09/289,198, filed April 9, 1999, which is a continuation-in-part of U.S. Patent Application No. 09/062,451, filed April 17, 1998, now U.S. Patent No. 6,344,550, which is a continuation in part of U.S. Patent Application No. 08/991,789, filed December 11, 1997, now U.S. Patent No. 6,225,054, which is a continuation-in-part of U.S. Patent Application No. 08/838,762, filed April 9, 1997, now abandoned, which claims priority from International Patent Application No. PCT/US97/00485, filed January 10, 1997, and is a continuation-in-part of U.S. Patent Application No. 08/700,014, filed August 20, 1996, which is a continuation-in-part of U.S. Patent Application No. 08/585,392, filed January 11, 1996, now abandoned.--

In the Claims:

Claim 20 has been amended as follows:

20. (Amended) A diagnostic kit comprising at least one oligonucleotide hybridizes to SEQ ID NO: 301, under moderately stringent conditions, wherein oligonucleotide hybridizes to at least a portion of the nucleotide sequence of SEQ ID NO: from nucleotide 1 to nucleotide 61.